

# INTERNATIONAL SEARCH REPORT

Internat. Application No  
PCT/GB 03/01065

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 F16K31/08 G21F5/12 F16J13/02

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 F16K G21F F16J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 1 351 196 A (FELLER F BAYERISCHE ALUMINIUM) 24 April 1974 (1974-04-24)  page 2, line 18 - line 112 figures	1-4,6-9, 13-16, 18-20
X	US 4 785 842 A (JOHNSON JR AYRES W) 22 November 1988 (1988-11-22)  column 3, line 23 -column 4, line 14 column 5, line 14 - line 24 figures	1,2,4, 6-10,14, 18-20
X	DE 20 64 615 A (KEELERIC, GEORGE FRIIS) 23 December 1971 (1971-12-23)  page 3, paragraph 6 -page 4, paragraph 2 figures	1-5,13, 15,16, 18-20
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
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- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

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- \*Y\* document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
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Date of the actual completion of the international search

5 June 2003

Date of mailing of the international search report

13/06/2003

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 980 094 A (CRITCHLEY RICHARD J ET AL) 25 December 1990 (1990-12-25) column 2, line 26 -column 3, line 27 figures ---	14, 18-20
A	US 3 567 066 A (MANSARD BERNARD) 2 March 1971 (1971-03-02)  column 2, line 53 -column 3, line 32 figures ---	1, 2, 4, 7-10, 13-20
A	FR 1 499 173 A (S E P I) 27 October 1967 (1967-10-27)  page 2, left-hand column, paragraph 13 -right-hand column, paragraph 7 figures -----	1, 3, 9, 10, 12-14, 18-20

## INTERNATIONAL SEARCH REPORT

International application No  
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Patent document cited in search report		Publication date		Patent family member(s)	Publication date
GB 1351196	A	24-04-1974	DE	2023394 A1	02-12-1971
			DE	7025737 U	22-04-1971
			BE	767137 A1	01-10-1971
			FR	2091556 A5	14-01-1972
			IT	942576 B	02-04-1973
			NL	7106411 A	16-11-1971
-----					
US 4785842	A	22-11-1988	NONE		
-----					
DE 2064615	A	23-12-1971	DE	2064615 A1	23-12-1971
-----					
US 4980094	A	25-12-1990	DE	3904429 A1	07-09-1989
			GB	2216049 A ,B	04-10-1989
			IT	1232255 B	28-01-1992
			JP	1254333 A	11-10-1989
			JP	2788643 B2	20-08-1998
-----					
US 3567066	A	02-03-1971	FR	1516902 A	05-02-1968
			BE	707851 A	16-04-1968
			CH	483699 A	31-12-1969
			DE	1586564 B	29-04-1971
			ES	348669 A1	16-03-1969
			GB	1132569 A	06-11-1968
			LU	55160 A1	06-03-1968
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FR 1499173	A	27-10-1967	NONE		
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